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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/676,543

10/01/2003

Hee Gap Park

STANF.133A

7667

20995

7590

02/03/2006

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EXAMINER

UNELUS, ERNEST

ART UNIT

PAPER NUMBER

2828

DATE MAILED: 02/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/676,543	Applicant(s) PARK ET AL.	
	Examiner Ernest Unelus	Art Unit 2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-18 and 21-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-3,5-18, 21-27 and 34-40 is/are allowed.
- 6) ☒ Claim(s) 28-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>02/13/04, 03/22/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 4, 19, and 20 have been canceled by the applicant.

Applicant's arguments with respect to claims 28-33 have been considered but are moot in view of the new ground(s) of rejection

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 28 and 30-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Hall, et al. "High-stability Er^{3+} -doped superfluorescent Fiber sources".

With respect to claim 28, Hall discloses wherein the mean wavelength is stable to within approximately ± 0.5 part per million over a period of time of at least one hour (see page 1459).

With respect to claim 30, Hall discloses wherein the SFS has a double-pass configuration (see page 1453).

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With respect to claim 31, Hall discloses wherein the SFS comprises an erbium-doped (Er-doped) fiber having a temperature (see abstract).

With respect to claim 32, Hall discloses wherein of the mean wavelength are primarily due to variations in the temperature of the Er-doped fiber (see fig. 12 on page1458).

With respect to claim 33, Hall discloses wherein the temperature of the Er-doped fiber is controlled to be stable to within approximately ± 0.5 degree Celsius (see page1459).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hall et al. "High-stability Er^{3+} -doped superfluorescent Fiber sources".

With respect to claim 29, Hall discloses wherein the mean wavelength is stable to within approximately 0.5 part per million for a long-term scale factor (see page 1459). Hall fail to disclose the mean wavelength is stable to within approximately ± 0.5 part per million over a period of time of at least 17 hours. However, Hall discloses when the

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temperature is control, the laser is stable for a period of at least 72 hours (see page 1459). It would have been obvious to one of ordinary skill in the art at the time the invention was made to stable the mean wavelength to within approximately ± 0.5 part per million over a period of time of at least 17 hours to reduce or eliminate coherence errors and noise due to Rayleigh backscattering, as discloses by Hall (see page 1452).

Response to Arguments

Applicant's arguments with respect to claims 28-33 have been considered but are moot in view of the new ground(s) of rejection.

Allowable Subject Matter

Claims 1-3, 5-18, 21-27, and 34-40 are allowed.

The following is a statement of reasons for the indication of allowable subject matter: In regards to claims 1, 6, 7, 13, 34, 39, and 40, the prior art of record fails to disclose "optimizing the length of the EDF, wherein the optimizing the length of the EDF comprises selecting the length to compromise between reduction of the dependence of the mean wavelength on the pump light power and reduction of the contribution of the forward ASE light to the output light; and reducing the influence of the pump light wavelength on the stability of the mean wavelength". In regards to claims 17, 21, and 27, the prior art of record fails to disclose "calculating the estimated mean wavelength using the measured temperature of the EDF and the dependence of the actual mean

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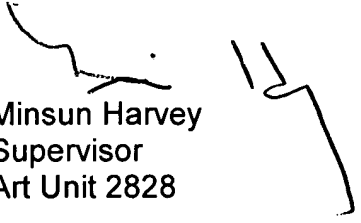
wavelength on the temperature of the EDF". The remaining claims 2, 3, 5, 8-12, 14-16, 18, 22-26, and 35-38 are allowed for their dependences on allowable claims.

Contact info

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernest Unelus whose telephone number is 571-272-8596. The examiner can normally be reached on 9am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minsun Harvey can be reached on 571-272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Minsun Harvey
Supervisor
Art Unit 2828

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